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| APPLICATION NO. | FILED DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|------------|----------------------|-----------------------------|------------------|
| 10/008,980 | 12/06/2001 | Thomas H. Baum | 260-CIP-DIV | 5984 |
| 25559 | 7590 | 10/28/2003 | | |
| ATMI, INC. 7 COMMERCE DRIVE DANBURY, CT 06810 | | | EXAMINER TALBOT, BRIAN K | |
| | | | ART UNIT 1762 | PAPER NUMBER |

DATE MAILED: 10/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|-----------------|--------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 10/008,980 | BAUM ET AL. |
| Examiner | Art Unit | |
| Brian K Talbot | 1762 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 11 August 2003.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-26 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-4,7,8,13-22,25 and 26 is/are rejected.

7) Claim(s) 5,6,9-12,23 and 24 is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.

2. Certified copies of the priority documents have been received in Application No. _____.

3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) Notice of References Cited (PTO-892)

4) Interview Summary (PTO-413) Paper No(s). _____.

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

5) Notice of Informal Patent Application (PTO-152)

3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.

6) Other: _____.

1. The amendment filed 8/11/03 has been considered and entered. Claims 27-29 and 32 have been canceled. Claims 1-26 remain in the application.
2. In light of the amendment filed 8/11/03, the objection to the specification and the 35 USC 112 first paragraph rejection have been withdrawn.

Claim Rejections - 35 USC § 103

3. Claims 1-4,7,8,13-22,25 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kirlin et al. (5,840,897), Vaartstra (5,763,633) or Baum et al. (5,096,737).

Kirlin et al. (5,840,897), Vaartstra (5,763,633) or Baum et al. (5,096,737) all teach composition including metal complex source reagents having ligand complexes for manufacturing iridium coatings for producing microelectronic devices such as DRAM or FRAM capacitors. A chemical vapor deposition process is utilized in an oxygen atmosphere and the metal complex is decomposed to form the metal coating.

Allowable Subject Matter

4. Claims 5,6,9-12,23 and 24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Reasons for Allowance

5. The following is a statement of reasons for the indication of allowable subject matter:
The prior art of record fails to teach the specific compositions detailed in the noted claims.

Response to Amendment

6. Applicant's arguments filed 8/11/03 have been fully considered but they are not persuasive.

Applicant argued that the prior art fails to teach forming an iridium containing film on a substrate in an oxidizing ambient atmosphere in a single step.

Firstly, Applicant's arguments are not commensurate in scope with the instant claims. The claims do not, as argued, require depositing and decomposition in a single step. Secondly, assuming the claims were to positively recite such a limitation, it is the Examiner's position that one skilled in the art at the time the invention was made would have had a reasonable expectation of achieving similar success regardless of whether or not the process was performed in a single or multiple steps. If applicant were to provide a showing of unexpected results regarding the criticality of a "single step" and claims were commensurate in scope with the showing, the Examiner would reconsider his position.

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian K Talbot whose telephone number is (703) 305-3775. The examiner can normally be reached on Monday-Friday 6AM-3PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive P Beck can be reached on (703) 308-2333. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3775.

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Brian K Talbot
Primary Examiner
Art Unit 1762

BKT
October 21, 2003